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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------|------------------|
| 10/050,750 | 01/16/2002 | Wai William Wang | 39524.1000 | 7722 |
| 20322 7590 01/08/2007 SNELL & WILMER 400 EAST VAN BUREN ONE ARIZONA CENTER PHOENIX, AZ 85004-2202 | | | EXAMINER PATEL, GAUTAM | |
| | | | ART UNIT 2627 | PAPER NUMBER |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 01/08/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/050,750

Applicant(s)

WANG ET AL.

Examiner

Gautam R. Patel

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment/Arguments:

1. This is in response to amendment filed on 11/28/06.
2. Claims 1-5, 7-8 remain for examination.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint-inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Suga US. patent 6,418,102 (hereafter Suga) in view of Ikeda US. patent 6,067,284 (hereafter Ikeda)

As to claim 1, Suga discloses the invention as claimed, an optical power calibration method [see Figs. 1-6, especially 2 & 6] including providing data to be written, determining a writing location of the data, and performing an optical power calibration process, comprising the steps of:

Setting a second power calibration area [a plurality of test sectors] within the last possible lead-out area;

providing data to be written on the data storage area [col. 3, line 46 to col. 4, line 20];

before writing that data in the data storage area, determining a writing location of the data in the data storage area;

determining whether the determined writing condition in the data storage area is within a predetermined condition or not, and according to the determining result, selecting one of the first

Art Unit: 2627

power calibration area and second power calibration area to perform an optical power calibration process to determine a calibrated writing power; and

controlling the access device to write the data with the calibrating writing power [col. 7, line 36 to col. 8, line 13].

Suga does not specifically disclose that the first power calibration area is located outside a center of the storage carrier and storing ending information of data and second power area located in past possible lead-out area.

However, changing location of power calibration area has been known in the art for a long time. Also more importantly Ikeda clearly discloses:

setting a first power calibration area located outside a center of the storage carrier;
setting a data storage area located outside the first power calibration area;
setting a last possible lead-out area located outside the data storage area and at the outermost edge of the storage carrier for storing ending information [address] about data written on the optical storage carrier [col. 18, lines 4-26].

Both Suga and Ikeda are interested in improving the laser power calibration method in an optical disk device. Both show different area for power calibration which are separate from data area.

One of ordinary skill in the art at the time of invention would have realized that different locations on disk require different speeds and therefore different calibration power with respect to location will make calibration process more accurate in the system of Suga.

Therefore, it would have been obvious to have also used a lead-out area power calibration in the system of Suga as taught by Ikeda because one would be motivated to calibrate the data which is location specific and thus improve accuracy of the recording and also playback in the system, especially in a high density recording environment.

4. The aforementioned claim 2, recites the following steps, inter alia, disclosed in Suga:
data storage area is divided into an inner area [fig. 6, inner ring] and an outer area [fig. 6, outer ring], and the predetermined portion is the inner area, when the writing location is located within the inner area [one of the inner sector in that track], performing the optical power calibration process in the first power calibration area, and when the writing location is located in

Art Unit: 2627

the outer area, performing the optical power calibration process in the second power calibration area [col. 7, line 36 to col. 8, line 13].

5. The aforementioned claim 3, recites the following steps, inter alia, disclosed in Suga:
the carrier player controls rotation of the optical storage carrier in a constant linear velocity (CLV) manner [fig. 6B; col. 8, line 53 to col. 9, line 20].
6. The aforementioned claim 4, recites the following steps, inter alia, disclosed in Suga:
the carrier player controls rotation of the optical storage carrier in a constant angular velocity (CAV) [constant rotational speed] manner [Fig. 6A and col. 8, line 53 to col. 9, line 20].
7. The aforementioned claim 5, recites the following steps, inter alia, disclosed in Suga:
the data storage area comprises two data segments, and the carrier player controls rotation of the optical storage carrier in a constant linear velocity (CLV) manner when the access device writing data onto one data segment, and each data segment having a different linear velocity [Fig. 6A and 6B and col. 8, line 53 to col. 9, line 20 and col. 1, lines 36-63].
8. The aforementioned claim 7, recites the following steps, inter alia, disclosed in Ikeda:
The starting point of the last possible lead-out area and the starting point of the second power calibration area are disposed in a predetermined length for storing ending information about data written on the optical storage carrier [fig. 17, area 238] [col. 18, lines 4-26 and Figs. 17 to 18B].
9. The aforementioned claim 8, recites the following steps, inter alia, disclosed in Suga:
Writing condition comprises a writing location of the data in the data storage area [fig. 3, area 33-1, 33-2 etc.], and the predetermined condition comprises a predetermined portion of the data storage area [col. 7, line 36 to col. 8, line 13].
10. Applicant's arguments with respect to claims 1-5 and 7-8 have been considered but are moot in view of the new grounds of rejection.

Art Unit: 2627

11. All of the above arts were sent in previous actions.

12. Applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2600) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.


GAUTAM R. PATEL
PRIMARY PATENT EXAMINER

Gautam R. Patel
Primary Examiner
Group Art Unit 2627

January 2, 2007